IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): Method of electrolytically forming conductor structures from highly pure copper on semiconductor substrate surfaces, provided with recesses, when ~~producting~~ producing integrated circuits [[,]] ~~more especially in recesses having a high aspect ratio~~[[,]] with the following method steps:

a. coating the semiconductor substrate surfaces, which are provided with the recesses, with a full-surface basic metal layer in order to obtain sufficient conductance for the electrolytic deposition;

b. full-surface deposition of copper layers having a uniform layer thickness on the basic metal layer by an electrolytic metal deposition method by bringing the semiconductor ~~substrates~~ substrate surfaces into contact with a copper deposition bath,

i. the copper deposition bath containing at least one copper ion source, at least one additive compound for controlling the physico-mechanical properties of the copper layers, ~~as well as~~ and Fe(II) compounds and/or Fe(III) compounds, and

ii. an electric voltage being applied between the semiconductor ~~substrates~~ substrate surfaces and dimensionally stable counter-electrodes, which are insoluble in the bath and are brought into contact therewith, so that an electric current flows between the semiconductor ~~substrates~~ substrate surfaces and the counter-electrodes;

c. structuring the copper layer.

Claim 2 (currently amended): Method according to claim 1, ~~characterised in that~~ wherein the current is changed with a sequence of uni- or bipolar pulses per unit time.

Claim 3 (currently amended): Method according to claim 2, ~~characterised in that~~ wherein the current is changed with a sequence of bipolar pulses per unit time, comprising a sequence of cathodic pulses lasting from 20 milliseconds to 100 milliseconds and anodic pulses lasting from 0.3 milliseconds to 10 milliseconds.

Claim 4 (currently amended): Method according to any one of claims 2 and 3, ~~characterised in that~~ wherein, in the case of bipolar pulses, the peak current of the anodic pulses is set to at least the same value as the peak current of the cathodic pulses.

Claim 5 (currently amended): Method according to any one of claims 2 ~~to~~ and 3, ~~characterised in that~~ wherein, in the case of bipolar pulses, the peak current of the anodic pulses is set to two to three times as high as the peak current of the cathodic pulses.

Claim 6 (currently amended): Method according to any one of ~~the preceding~~ claims 1-3, ~~characterised in that~~ wherein at least one additive compound is used, selected from the group comprising polymeric oxygen-containing compounds, organic sulphur compounds, thiourea compounds and polymeric phenazonium compounds.

Claim 7 (currently amended): Method according to any one of ~~the preceding~~ claims 1-3, ~~characterised in that~~ wherein inert metals, coated with noble metals or oxides of the noble metals, are used as the dimensionally stable, insoluble counter-electrodes.

Claim 8 (currently amended): Method according to claim 7, ~~characterised in that~~ wherein expanded titanium metal, coated with iridium oxide and irradiated by means of fine particles, is used as the counter-electrode.

Claim 9 (currently amended): Method according to any one of ~~the preceding~~ claims 1-3, ~~characterised in that~~ wherein the concentration of the compounds of the copper ion source in the copper deposition bath is kept constant per unit time, because copper parts or copper-containing shaped bodies are brought into contact with the copper deposition bath, and copper is dissolved by reacting with Fe(III) compounds and/or Fe(III) ions contained in the bath.